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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,819	05/26/2006	Takuya Tsukagoshi	128159	7408
25944 7590 12/10/2008 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
ASSAF, FAYEZ G				
ART UNIT		PAPER NUMBER		
2872				
MAIL DATE		DELIVERY MODE		
12/10/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,819

Applicant(s)

TSUKAGOSHI ET AL.

Examiner

Fayez G. Assaf

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-20 and 24-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date 5/26/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 3-5 and 21-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/25/08. The traversal is on the ground(s) that a lack of unity of invention was required before considering any prior art. The examiner notes that the applied prior art in the present Office action is an evidence that the lack of unity of invention is proper.

Claim Rejections - 35 USC § 112

Claims 11-13, 18 and 30-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite "forming the servo beam(s) by splitting part of the reproduction beam" which is vague. It is not clear whether or not there is one system or two separate systems.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 8, 19, 20 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Amble et al. (US 2004/0001400 A1).

Regarding claims 1, and 19, Amble discloses a holographic memory reproduction apparatus in which a diffraction beam is generated in a recording layer of a holographic recording medium (86 of Fig. 3) by projecting a reproduction beam (12 of Fig. 2) onto interference fringes formed by projecting an object beam and a reference beam ([0010]) onto the recording layer to thereby reproduce information from this diffraction beam, the apparatus comprising a servo optical system (64 and 74 of Fig. 2) in which a servo beam which satisfies the Bragg condition while at least one of the wavelength, incident angle, and incident direction thereof is different from that of the

reproduction beam (line 11 of [0074]) is projected onto the interference fringes, whereby the reproduction position servo-control of the holographic is performed by means of the diffraction beam generated by the projection of the servo beam.

Regarding claims 2 and 20, the servo optical system is configured such that the servo beam is projected along a projection optical axis of the object beam and the direction opposite to that of the object beam (See Fig. 2).

Regarding claims 8 and 27, the servo optical system comprises a servo beam source which emits the servo beam different from the reproduction beam (See [0074]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 9, 10, 14-18, 24-26 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amble et al.

Amble discloses the claimed invention except for:

- The servo beam being a plane wave having a beam diameter of $1/100$ to $1/10$ of the beam diameter of one of the object beam, the reference beam, and the reproduction beam.

- The shift multiplex recording being performed two-dimensionally on the holographic recording medium and two-dimensional reproduction position servo-control is performed on the holographic recording medium by means of the diffraction beam generated by the projection of the servo beam.

- The reference beam being a non-collimated beam, and the interference fringes are formed through spherical waves.

However, servo control of shift multiplexing is well known, and the determination of servo beam diameter or beam collimation is achieved by routine experimentation which does not serve as basis for patentability.

It would have been obvious, at the time the invention was made, to a person having ordinary skill in the art to utilize the shift multiplexing method, after the optical beams collimation and diameters have been determined, so as to reduce cross talk between recorded holograms.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fayez G. Assaf whose telephone number is (571) 272-2307. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Fayez G. Assaf/
Primary Examiner, Art Unit
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December 8, 2008